OPTIMIZE YOUR COMPUTER'S POWER SETTINGS

(How to extend your maximize your battery life)

The display and hard disk on your mobile PC are the two biggest consumers of battery power. By choosing a power plan (called a *power scheme* in Windows XP) you can extend your battery life by automatically lowering screen brightness and reducing other power-hungry functions. A power plan is a collection of hardware and system settings that control how your mobile PC manages power.

Windows 7

Windows 7 has two default power plans:

- **Balanced.** Automatically balances performance with energy consumption on capable hardware.
- **Power saver.** Saves energy by reducing your computer's performance where possible.

Change your power plan

1. On the Windows taskbar, in the notification area, click the battery meter icon.



2. Select either the **Balanced** or **Power saver** power plan.

Windows XP

Windows XP includes two power schemes that were created specifically for laptops and other mobile PCs.

- **The Portable/Laptop power scheme.** Minimizes the use of power to conserve your battery but adjusts to your processing needs so that the system speed is not sacrificed.
- The Max Battery power scheme. Minimizes power use but does not adjust as your processing demands change. You should use Max Battery only in situations that require minimal processing, such as reading documents and taking notes in a meeting.

Use a power scheme designed to maximize battery life:

- 1. Click **Start** O button, and then click **Control Panel**.
- 2. In Control Panel, verify that you're in Category view, and then click **Performance and Maintenance**.
- 3. In the Performance and Maintenance window, click **Power Options**.
- 4. On the **Power Schemes** tab of the **Power Options Properties** dialog box, click the arrow under **Power schemes**, and then click **Max Battery**.
- 5. Click **OK**.

You can also create a custom power scheme to suit your specific needs. You can create as many custom power schemes as you want.

Take advantage of low-power states

The different versions of Windows provide the following battery-saving states:

- Windows 7. Sleep and hibernation (which is like deep sleep)
- Windows Vista. Sleep and hybrid sleep (which is a combination of sleep and hibernation)
- Windows XP. Standby (which is like sleep) and hibernation (which is like deep sleep)

Sleep (Standby)

In a sleep state (standby), your display and hard disk turn off, and all open programs and files are saved in random access memory (RAM)—your computer's temporary memory—rather than to the hard disk. Information stored in RAM is cleared when the computer turns off, so it's a good idea to save your work before placing your system in sleep or standby mode. Otherwise you may lose data if you lose power or swap batteries or if your system crashes.

Sleep (standby) is particularly useful when you're using your mobile PC intermittently during the day. For example, when driving between clients' offices, put your computer to sleep or on standby to maximize the life of your battery and to maintain quick access to open programs, files, and documents. When you want to use your computer again, it wakes up quickly, and your desktop is restored exactly as you left it.

Windows 7

- To put your computer into a sleep state, click the **Start** Subtron, click the arrow to the right of the **Shut down** button, and then click **Sleep**. This action saves all open documents and programs and puts your computer to sleep while still allowing the computer to quickly resume full-power operation (typically within several seconds) when you want to start working again.
- To wake your computer, press the **Power** button on your computer.

Windows XP

Click the **Start** 🔘 button, and then click **Control Panel**.

- 1. In Control Panel, verify that you're in Category view, and then click **Performance and Maintenance**.
- 2. In the Performance and Maintenance window, click **Power Options**.
- 3. In the **Power Options Properties** dialog box, click the **Advanced** tab.
- 4. Under **Power buttons**, click the arrow, and then click **Standby**.
- 5. Click **OK**.

Hibernation

In hibernation, your computer saves everything to your hard disk and then shuts down. When you restart the computer, your desktop is restored exactly as you left it. Hibernation uses less power than the sleep state (standby), but it takes a bit longer to resume.

Windows 7

• To put your computer in hibernation, click the **Start** Start button, click the arrow to the right of the **Shut down** button, and then click **Hibernate**.

Windows XP

- 1. Click the **Start** 🔘 button, and then click **Control Panel**.
- 2. In Control Panel, verify that you're in Category view, and then click **Performance and Maintenance**.
- 3. In the Performance and Maintenance window, click **Power Options**.
- 4. In the **Power Options Properties** dialog box, click the **Hibernate** tab.
- 5. Under **Hibernate**, select the **Enable hibernation** check box.
- 6. Click **OK**.

Hybrid Sleep

Hybrid sleep is a power-saving feature designed primarily for desktop computers. Hybrid sleep saves any open documents and programs to random access memory and to your hard disk and then puts your computer into a low-power state.

Adjust screen brightness

You can also conserve battery power by reducing the screen brightness. To adjust your screen brightness, refer to the instructions from your mobile PC manufacturer. Every computer is slightly different, but you can usually use a combination of keys, a function key, or a software tool to dim the screen.

Even better than dimming the screen is blanking it completely when you're not using your computer. You can further minimize power consumption by reducing the amount of time the computer is idle before the screen goes blank. The power schemes and power plans in Windows let you adjust your power settings to turn off the display after as little as one minute of inactivity..

Turn off wireless

Another significant drain on your battery power is your wireless card. You should turn off your wireless device when you're using your mobile PC but are not connected to a wireless network. You can either

remove your Wi-Fi card or press the manual hardware button (or switch) on your computer, if you're using a Centrino-based mobile PC. Refer to the instructions from your mobile PC manufacturer to learn where the manual hardware button is. Other computers may require that you turn off the wireless connection using software settings. Again, consult your instruction manual for details.

Additional power-saving tips

In addition to adjusting power settings to maximize battery life, consider the following tips to minimize power consumption when you're away from electrical outlets.

- **Turn off scheduled tasks.** If you use scheduled tasks to run programs or scripts, or if you schedule other tasks to occur automatically at a preset time, specify that these tasks won't be performed when the computer is running on battery power.
- Keep the use of tools in the notification bar to a minimum. Try to minimize your central processing unit (CPU) usage. Look at the notification area of the taskbar and close any tools (or utilities) that are not necessary. Often, these tools are installed on the computer when you first receive it. Windows 7 users can also click the up arrow at the end of the notification area to see tools and utilities that are hidden but available. The notification bar, shown below, is on the bottom right of your computer desktop.



• Limit power-intensive activities. Avoid watching a DVD, listening to a CD, or playing online games on your mobile PC when you need to conserve battery power.

By adjusting your mobile PC settings to conserve battery power and by implementing these tips, you can relieve the stress and inconvenience of running out of battery power.

The above information is an excerpt from the Convening Circular for the 2013 Joint Assembly. http://jointassembly.ca/